BRUHATH BENGALORE MAHANAGARA PALIKE DASARAHALLI ZONE

me of Work :Drilling of Borewell, Providing Pipelines and other water facility works at ward 13, Shettyhalli Sub Division

Est Cost Rs :35.00 Lakhs

No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate/Unit (Rs.)	Amount (Rs.)
	For Borewell								
1	**Geophysical investigation of site for sinking borewell** for supplying drinking water to the habitation either through the hand pump, MWS or P.W.S.S. by vertical electrical sounding by adopting venner or schlumbergers's method, including reconnaissance survey of geological formation, Geological investigation of existing ground water in vicinity, its quality, quantity & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 mtr in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site, engaging technical personal and labour required etc .**(Page no.148,item no.13.04 ,RWS SR-Banagalore Circle-2019-2020)**								
	Area								
	Near Dobhighat		1				1.00		
	Kempegowda Park Entrance		1				1.00		
	Kalyana Nagara		1				1.00		
		Each					**3.00**	**3768.00**	**11304.00**
	Basic Rate	3768.00							
2	**Sinking of borewell of 165 mm dia clear using super fast hydraulic rig** of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) **(Page no.148,item no.13.01 ,RWS SR-Banagalore Circle-2019-2020)**								
	Area								
	0.00 to 50.00 Mtr.	Mtr	3	50.00			**150.00**	**347.00**	**52050.00**
	Basic Rate	347.00							
	50.00 to 100.00 Mtr.	Mtr	3	50.00			**150.00**	**442.00**	**66300.00**
	Basic Rate	442.00							
	100.00 to 150.00 Mtr.	Mtr	3	50.00			**150.00**	**456.00**	**68400.00**
	Basic Rate	456.00							
	150.00 to 200.00 Mtr.	Mtr	3	50.00			**150.00**	**536.00**	**80400.00**
	Basic Rate	536.00							
	200.00 to 250.00 Mtr.	Mtr	3	50.00			**150.00**	**634.00**	**95100.00**
	Basic Rate	634.00							
	250.00 to 300.00 Mtr.	Mtr	3	50.00			**150.00**	**700.00**	**105000.00**
	Basic Rate	700.00							
	300.00 to 350.00 Mtr.	Mtr	3	50.00			**150.00**	**825.00**	**123750.00**
	Basic Rate	825.00							
	350.00 to 400.00 Mtr.	Mtr	1	18.00			**18.00**	**900.00**	**16200.00**
	Basic Rate	900.00							
3	**Supply of ISI mark 175mm nominal bore,plain and steel casing pipe** grade of steel Fe 410 of wall thickness conforming to IS 4270-2001 and latest ammendments, electrical resistance welded steel tubes, material and conforming to IS 1387-1993 and manufactured by basic open hearth electric or basic oxygen process in random length of 5-7m both ends.threaded conforming to IS 554-1985 one end fixed with socket conforming to IS 4270-2001 and the other end with screwed pipes. All shall be responsibaly free from defects. The tubes shall be responsible straight end should be with ISI marking weighing 25.10kg/m.(exclusive of all taxes and duties).prices include Collar-Medium duty. 175mm dia x 5.4mm thick **(Page no.338,item no.15.85 ,RWS SR-Banagalore Circle-2019-2020)**								
		Rmt	3	50.00			**150.00**	**1325.00**	**198750.00**
	Basic Rate	1325.00							

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No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate/Unit (Rs.)	Amount (Rs.)
6	Providing and fixing 250mm dia PVC pipe and as per specification and directions.								
		Rmt	3	6			18.00	1144.00	20592.00
	Basic Rate	1144.00							
	Providing and laying at site of work175mm thick MS casing caps as per IS 1239 (part-II) 1982 with all latest amendments if any for any dia. The thickness of plate used for covering one end shall be 3mm (minimum). The dimensions of caps and colars shall be strictly as per IS 1239 (Part-II) 1982 with all amendments including cost of material and labour charges for fixing, if any etc. complete with all lead and lifts and as directed by the Engineer in charge **(Page no.338,item no.15.87 ,RWS SR-Banagalore Circle-2019-2020)**								
		Each	3				3.00	100.00	300.00
	Basic Rate	100.00							
5	**Supply & delivery at site brand new texmo/innoval/lubi/sabar /Atalanta/calamal/ waterman/Radha make suitable HP deep well submercible pumpset suitable** for vertical installation in 150 dia borewells compressing of single stage or multistage CF pump close coupled by means of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water squirrel cagesubmercible induction motor suitable for operation of 3Ph, 50Hz.380/440 volts AC supply fitted with required accessories such as suction, casing, suction strainers, sand guard. Non return valve etc Complete the pump and motor shall from an integral unit with all the required fittings **15HP/11KW 35stage (P.NO-XLII, I.NO-41, PWD SR-2018-19)**								
		Nos	3				3.00	67724.00	203172.00
	Basic Rate	67724.00							
7	**Providing, laying & jointing GI pipes** confirming to IS specification of approved make with fittings such as collars bends elbows tees nipples plugs with cuts threads using white lead & threads for joints wherever necessary as per direction including all lead & lift etc,. complete 'A' grade(excluding cost of fittings) 50mm dia GI pipe **(PWD SR-2018-19, P.No.92 I.no. 13.6)**								
		Rmtr	3	300.00			900.00	512.00	460800.00
	Basic Rate	512.00							
8	supply of 50mm M.S collars **(PWD SR-2018-19, P.No.XLVII Sl.no.2)**								
		Each	3	50.00			150.00	200.00	30000.00
	Basic Rate	200.00							
9	**Supplying and drawing 3 core PVC Sheathed submersible pump cable** manufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to IS: 8130-1984. and virgin grade PVC Sheated Suitable for working voltage upto 1100 Volts as per IS:694:1990. 3C X 6.0Sq.mm**(P.NO-07, I.NO-2.6.4, PWD Electrical SR 19-20,Bangalore circle)**								
		Mtr	6	320.00			1920.00	205.00	393600.00
	Basic Rate	205.00							
10	Supplying & delivery at site brand new / Essen / Lotus sunsines/Adarsh/ Gk controls best indigenous make combine energy meter-cum-control panel board unit of size 1200 x 600 x 300 mm minimum mechanically strong and vermin and water proof the unit shall have two detachable doors suitable for operation on 3ph, 50Hz, 380/440 volts, AC supply with spring loaded latch locking with a key ribs should be provided inside the door , canopy apron and louvers ventilators shall be provided the combine energy mtr cum control panel board unit suitable for operation on 3ph, 50Hz, 380/440 AC supply shall be consisted etc,. completed T panel board shall be fabricated on single unit in the above components panel board for suitable pumpset above components panel board for suitable pumpset above 6.50 HP to 15.00 HP with star delta starter (MR)								
		Nos	3				3.00	14800.00	44400.00
	Basic Rate	14800.00							
11	**Fabricating supplying and mounting MS box** of 16 SWG suitable for floor / wall mounting, fully weather proof with provision for better hear description, (providing with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primes paint and finally finished with approved colour enamelled metal paint etc,. complete box of 21600 sq cm **(P.NO-30, I.NO-5.42.1, PWD SR Electrical 19-20,Bangalore circle)**								
	for 1 borewell		3	1100.00	20.00		66000.00		
		Sqm Cm					66000.00	0.40	26400.00
	Basic Rate	0.40							

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No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate/Unit (Rs.)	Amount (Rs.)
	Providing & Fixing of clamps set and borewell cap to the pump (MR) **(P.NO-XLVII, SI.NO-17, PWD SR-2018-19)**								
		Set	3				3.00	1800.00	5400.00
	Basic Rate	1800.00							
	Supply and delivery at site of brand new best make non-return valve as per IS 778/1984 with ISI Mark and as per its latest amendments,**Size- 50mm . (Page no.129,item no.12.06 (a) ,RWS SR-Banagalore Circle-2019-2020)**								
		No's	3				3.00	1175.00	3525.00
	Basic Rate	1175.00							
	Supply and delivery at site of brand new best make gate valve as per IS 778/1984 with ISI Mark and as per its latest amendments,**Size- 50mm (Page no.129,item no.12.05 (a) ,RWS SR-Banagalore Circle-2019-2020)**								
		No's	3				3.00	1190.00	3570.00
	Basic Rate	1190.00							
	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI bend confirming to IS 1239-II, 1991 with latest amendments if any. **(Page no.335,item no.15.74.5 ,RWS SR-Banagalore Circle-2019-2020)**								
		No's	3				3.00	235.00	705.00
	Basic Rate	235.00							
	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI union confirming to IS 1239-II, 1991 with latest amendments if any. **(Page no.335,item no.15.78.5 ,RWS SR-Banagalore Circle-2019-2020)**								
		No's	3				3.00	175.00	525.00
	Basic Rate	175.00							
	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI elbow confirming to IS 1239-II, 1991 with latest amendments if any.**(Page no.33,item no.15.73.5 ,RWS SR-Banagalore Circle-2019-2020)**								
		No's	3				3.00	175.00	525.00
	Basic Rate	175.00							
	Labour charges for Erection, Electrification and commissioning of Pump sets, including aligning and balancing of all items including supply and erection of two pair of supporting clamps, bore well caps, cable clips and water tight gland cable protectors, bolts, nuts, valve and gauges,tools and equipments etc., involved in the job as per specifications, with necessary tests as per specifications, with testing of as per instructions of engineer incharge of work. **(Page no.130,item no.12.16 ,RWS SR-Banagalore Circle-2019-2020)**								
		Job	3				3.00	5650.00	16950.00
	Basic Rate	5650.00							
	Labour charges for erection of indoor type panel board and meter board units with all necessary materials and labour tools and equipments including cement concrete for foundation/bed etc,complete as per specification, with testing of as per instructions of engineer incharge of work. **(Page no.130,item no.12.17 ,RWS SR-Banagalore Circle-2019-2020)**								
		No's	3				3.00	1127.00	3381.00
	Basic Rate	1127.00							
	Supplying and fixing miniature circuit breakers/isolators on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, Energy cross-3 with short circuit breaking capacity of 10k and complete wiring as required confirming to IEC 60898, 40 Amps DP **(P.NO -27, I.NO - 5.17.5, ,PWD Electrical SR 19-20,Bangalore circle)**								
		Each	3				3.00	1336.00	4008.00
	Basic Rate	1336.00							
	Supplying and laying of L.T.U.G Cable having aluminium conductor PVC insulated shethed galvanised steel wire/ steel tape armoured cable with PVC outer sheathing **1.1 KV class 4 core 16 sqmm cable** (confirming to IS 1554) **(P.NO - 40, I.NO - 6.4.4,PWD Electrical SR 19-20,Bangalore circle)**								
		Mtr	3	35.00			105.00	150.00	15750.00
	Basic Rate	150.00							
	Digging of trenches of 0.6mm x 0.50 Mtrs wide refilling the trench to the required ground level and consolidating etc,. Complete sutting road surfaces (As per Civil SR KSRB I-2,P-7)**(P.NO -41, I.NO -6.6.1,,PWD Electrical SR 19-20,Bangalore circle)**								

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No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate/Unit (Rs.)	Amount (Rs.)
		Mtr	3	35.00			105.00	76.00	7980.00
	Basic Rate	76.00							
3	Supplying and fixing Class-A GI Pipe on pole/ wall/drain crossing with necessary clamping arrangements for UG Cable of 1.1 KV class 40mm **(P.NO -41, I.NO -6.9.1, PWD Electrical SR 19-20,Bangalore circle)**								
		Mtr	3	3.00			9.00	335.00	3015.00
	Basic Rate	335.00							
24	Earthing: Supplying and fixing and wiring earth electrode for grounding circuits IC cutouts and other equipments on the meter board in the pit. The pits should be filled up with equal proportion of salt and charcoal 150mm around the pipe to complete depth. The connection from the pipe to the conduits etc. is to established through GI wire of sizes as per clause 7.3.3 of IS 732 using 12mm bolts, nuts, washers and check nuts, the pipe shall have 16 through holes of 12mm dia. **(Page no.131,item no.12.23 ,RWS SR-Banagalore Circle-2019-2020)**								
		Job	3				3.00	3633.00	10899.00
	Basic Rate	3633.00							
25	Providing,Supplying and fixing LT cast iron potheads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps,bolts,nuts and washers etc. with necessary materials and labour tools and equipments as per instructions of engineer incharge of work. **3½x6 Sqm (Page no.131,item no.12.22 ,RWS SR-Banagalore Circle-2019-2020)**								
		No's	3				3.00	497.00	1491.00
	Basic Rate	497.00							
26	Supplying, fixing and wiring heavy duty low voltage capacitors conforming to IS 2834, 3phase 400/440 volts grade,for power Factor improvement of roating machinery like indution motor **(P.NO -29, I.NO -5.37, PWD Electrical SR 19-20,Bangalore circle)**								
		KVAR	3				3.00	400.00	1200.00
	Basic Rate	400.00							
27	Supplying and fixing of polished wood board made of not less than 15mm thick plank on both sides of not more than 2 pieces and fixing the same to wall using tapered inverted wooden plugs screws etc., **Size 20 x 20 x 2.5 inches (P.NO - 24, I.NO -5.6.6, PWD Electrical SR 19-20,Bangalore circle)**								
		Each	3				3.00	292.00	876.00
	Basic Rate	292.00							
28	KPTCL Deposit charges			L/S			3.00	10000.00	30000.00
29	Borewell registration charges per Rs 1000 each for BWSSB						3.00	1000.00	3000.00
30	KSRB 2-2.2 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinery soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(b) / 2.3.5 **(Page No.5 , Item No.2.4,PW,P & IWTD SR 2018-19)**								
	Bore well								
	For water line supply		3	134.00	0.75	0.90	271.35		
		cum					271.35	316.94	86001.67
	Basic Rate	299.00							
	Area Weightage 6%	17.94							
	Total	316.94							
31	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) pipes conforming to IS 15778 having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings this includes jointing of pipes and fittings with one step solvent cement, trenching, refilling & testing of joints complete (external work) 50mm nominal OD pipes **(Page No.99, Item No. 13.87.6 SR 2018-19)**								
			3	134.00			402.00		
		Rmt					402.00	457.92	184083.84
	Basic Rate	432.00							

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	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate/Unit (Rs.)	Amount (Rs.)
	Area Weightage 6%	25.92							
	Total	**457.92**							
	KSRRB BM400: Wet Mix Macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 **(Page No.155, Item No.20.18 PWD SR 2018-19)**								
	Bore well								
	For water line supply		3	134.00	0.75	0.15	45.23		
		Cum					**45.23**	**2001.28**	**90507.89**
	Basic Rate	1888.00							
	Area Weightage 6%	113.28							
	Total	**2001.28**							
	KSRRB M2100-10: Providing and laying Plain cement concrete of mix 1:3:6 with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications. **(P.No-222,I No-27.18 PWD SR 2018-19)**								
	Bore well								
	For water line supply		3	134.00	0.75	0.15	45.23		
		cum					**45.23**	**5509.33**	**249159.30**
	Basic Rate	5115.00							
	Deduct Cement cost as per SR -18-19	-1079.39	Note:- (220*490.63)/100=1079.39						
	Add Cement cost as per Issue rate	1161.86	Note:- (220*264.06)/100=1161.86						
	Sub total	**5197.48**							
	Area Weightage 6%	311.85							
	Total	**5509.33**							
	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. - M30 (at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum) **(Page No. 175.tem No.22.6.1,PW,P & IWTD SR 2018-19)**								
	Bore well								
	For water line supply		3	134.00	0.75	0.15	45.23		
		cum					**45.23**	**5354.02**	**242135.64**
	Basic Rate	4916.00							
	Deduct Cement cost as per SR -18-19	-1766.27	Note:- (360*490.63)/100=1766.27						
	Add Cement cost as per Issue rate	1901.23	Note:- (360*264.06)/50=1901.23						
	Sub total	**5050.96**							
	Area Weightage 6%	303.06							
	Total	**5354.02**							

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	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate/Unit (Rs.)	Amount (Rs.)
	Filling available earth around pipe lines cable in layers not exceeding 20cms, in depth compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost all labour complete as per specifications (Page No.6 Item No. 2.10,PW,P&IWTD SR 2018-19)						120.25		
	Consider of Qty vide No.30 as 50%						~~118.58~~		
		Cum					~~118.58~~	213.06	~~25265.51~~
	Basic Rate	201.00					120.25		2475064
	Area Weightage 6%	12.06							
	Total	213.06							
							2988956.97	Total construction cost	2990446.77
							358624.84	GST Charges 12%	~~358853.61~~
							149427.85	Tender Premium 5%	~~149522.34~~
							3497009.66	Sub Total	3498822.72
							2990.34	Miscellaneous and other unforseen charges	~~1177.28~~
								Total	3500000.00
	Rupees Thirty Five Lakh(s) Only								

CERTIFICATE

1) This Work Comes Within BBMP Limits.

2) Certified that personaly Inspected the Work Spot.

3) Certified that the Estimate is Prepared Based on RWS,Electrical SR 2019-20, and CSR of PWD Bangalore Circle 2018-19

4) Estimate is Prepared Making Use of essential itemof work as per site conditions in safest way of Execution in most economical way

5) This work is not include in any other program of work.

Assistant Engineer
Ward No.13

Assistant Executive Engineer
Shettyhalli Sub-Division

Executive Engineer
Dasarahalli Division

EXECUTIVE ENGINEER
Bruhat Bengaluru Mahanagara Palike
Dasarahalli Division, Bengaluru-73

ADMINISTRATIVELY SANCTIONED FOR
(Rupees....35.00..Lakhs.....
.....Thirty five Lakhs only.....
Under the Head of Account...P.1802.....
...Water Supply New Area.....
.....
registered as no EE(D.D.)/AS).81/20-21 subject
to conditions contained in Enclosed Memo
EE(DD/AS).81../2020-21....Dt:01/07/20

AE.

Exe. Eng
(DASARAHALLI) BBMP

Technically Sanctioned For Rs: 35.00,000 Lakh
Rs. In Words Thirty Five Lakhs
Rupees only
Under P-1802 Water Supply new Area
Job Code No. 013-20-000065
Registered as SE No. 55 /20-21 subject
to conditions contained in Enclosed Memo
No SE/02/TS/55/2020-21 Dt 17/07/20

TA

SE(D)

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